

BRYOBROTHERA¹

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Bryobrothera Thér., *Rev. Bryol.* 47: 26 (1921); the name commemorates the Finnish bryologist Viktor Ferdinand Brotherus (1849–1929).

Type: *B. crenulata* (Broth. & Paris) Thér.

Dioicous. Plants of moderate size, generally prostrate, light green to green, older leaves often deep reddish. Leaves dense, overlapping, broadly elliptical to obovate or spatulate-obovate; apex broadly acute to rounded-obtuse; margin crenulate above, minutely crenate to nearly entire below; costa reddish, single, prominent, ending near the leaf apex or slightly beyond. Laminal cells thick-walled, smooth, rarely mammillose, rounded-hexagonal, ±isodiametric. Rhizoids common, axillary on older stems, branched, irregularly roughened, thick-walled.

Perigonia and perichaetia in upper leaf axils. Calyptra mitrate, covering c. half the capsule, sparingly pilose. Seta erect, smooth. Capsules horizontal to pendent. Endostome segments as long as the exostome teeth; basal membrane c. 40% of the segment length; cilia absent.

Bryobrothera is a monotypic genus.

References

Norris, D.H. & Robinson, H. (1979), The systematic position of *Bryobrothera crenulata*, *Bryologist* 82: 305–309.

Streimann, H. (1999), Taxonomic studies on Australian Hookeriaceae (Musci). 2. The genera *Distichophyllum* and *Bryobrothera*, *J. Hattori Bot. Lab.* 86: 89–119.

Bryobrothera crenulata (Broth. & Paris) Thér., *Rev. Bryol.* 47: 26 (1921)

Mesochoaete crenulata Broth. & Paris, *Öfvers. Förh. Finska Vetensk.-Soc.* 51A(17): 19 (1908). T: Mt Dzumac, [New Caledonia], *A. Le Rat*; holotype: H n.v.

Illustrations: D.H.Norris & H.Robinson, *op. cit.* 307; H.Streimann, *op. cit.* 116, fig. 15.

Stems reddish, 1.0–2.1 mm long; branch tips generally curling down towards the substratum. Leaves flattened when dry, erecto-patent, when moist, complanate, 8-ranked, variable in shape, 0.6–1.2 mm long, 0.3–0.6 mm wide; apex often with a small apiculus; costa c. 40 µm wide at the base. Laminal cells 10–12 µm wide; median and basal juxtacostal cells longer, thicker-walled; basal cells elongate-rhomboidal to linear-rhomboidal, to 30 × 5 µm, smaller near their margin. Rhizoids 12–16 µm wide; cells c. 125 µm long.

Perigonial leaves ovate to broadly lanceolate, c. 0.8 mm long; costa extending to near the apex. Perichaetial leaves narrowly ligulate, 0.4–0.9 mm long, 0.15–0.20 mm wide; costa extending to near the apex; laminal cells thick-walled, narrowly rhomboidal, 15–26 × 5–7 µm; basal cells becoming indistinct. Archegonia c. 300 µm long. Seta 3–4 mm long. Capsules 0.8–1.2 mm long; operculum rostrate, to 0.6 mm long. Exostome teeth c. 200 µm long, reddish below, paler above; dorsal groove prominent. Spores minutely papillose, 15–18 µm diam.

Known from lowland to montane forest in north-eastern Qld; grows on tree trunks, branches, vines, logs and boulders. Also in the Philippines, New Guinea, the Solomon Islands, New Caledonia and Fiji.

¹ Now part of the family Daltoniaceae [Goffinet, B., Buck, W.R. & Shaw, A.J. (2012), *Classification of the Bryophyta*. <http://www.eeb.uconn.edu/people/goffinet/Classificationmosses.html>].

Cite as: H.Streimann, *Australian Mosses Online. 11. Hookeriaceae: Bryobrothera*. http://www.anbg.gov.au/abrs/Mosses_Online/Bryobrothera.pdf (2012)

Qld: Mt Finnigan Ra., 39 km S of Cooktown, *H.Streimann 57259* (CANB); Windsor Tableland, 45 km NW of Mossman, *H.Streimann 29604* (CANB, L, NICH); near Mt Haig, Lamb Ra., 22 km SE of Mareeba, *H.Streimann 57716* (CANB, NY); Mount Spec S.F., Paluma Ra., 38 km S of Ingham, *H.Streimann 57841* (H, NY); Eungella Natl Park, *I.G. Stone 17039* (MELU).

Bryobrothera is characterised by the prominent reddish nerve, the scattered reddish leaves and the curling branch tips.

Only two sparsely fertile specimens were collected (in March and November). The laminal cells often appear regular, even though there can be slight differences between the marginal and juxtacostal cells compared to those at mid-leaf.